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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,113	09/19/2005	Kevin Jeffrey Kittle	13877/15701	5193

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EXAMINER	
PARKER, FREDERICK JOHN	
ART UNIT	**PAPER NUMBER**
1762	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,113	KITTLE ET AL.	
	Examiner	Art Unit	
	Frederick J. Parker	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-26 and 28-51* is/are rejected.

7)☒ Claim(s) *2 and 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6-21-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract should comply with the above requirements for the claimed subject matter including method.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-19,22-28,35,36,45-48, 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 1-19,22-24,26-28, 36, 45-48 are vague and indefinite because it is unclear how the apparatus and method are "arranged to operate" and "conducted", respectively, without ionjsation or corona effects, which appears to be a critical aspect of the invention. If Applicants mean the voltage of the electrode/s are operated at such low voltages as to not create ionisation or corona effects, then say so please.
- Claims 1-3,27,28 are vague and indefinite because it is unclear how the electrode influences the extent to which charged particles adhere to a substrate region.

- Claims 22-24 are vague and indefinite because they contain limitations specifically directed to a method which does not further define or limit the structure of the apparatus. Applicant cannot properly claim a combination of a device and a material worked upon (e.g. the substrate), In re Hughes 49F. 2nd 478. There is no patentable combination of a device and the material upon which it works (e.g. substrate) In re Rishoi 94 USPQ 71.

- Claim 35, "the plastics material" lacks antecedent basis.
- Claims 25,50 are vague and indefinite because it refers to a large number of figures, which are without scale and therefore at least imprecise, and indefinite; further, the use of figures in a claim is narrowly permitted under MPEP 2173.05s only when written

description is impossible, which clearly is not the case since there are otherwise about 50 descriptive claims. Further, the figures cannot show active steps of a process and therefore fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants must cancel claims 25 and 50.

- Claim 36 is vague and indefinite because the relative term "highly" fails to convey the intended insulating properties of the plastics material.
- Claims 45-48 are vague and indefinite because it is unclear how the process of immersing a precharged substrate is carried out without the substrate in the process being ionized, which is expressly prohibited by the wording of claim 26 on which it ultimately depends. Ionization necessarily entails having a charge so a charged substrate introduces ionization effects into the fluidized bed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1,3-24,26,28-44,49 are rejected under 35 U.S.C. 102(b) as being anticipated by Barford US 3248253.

Barford teaches an electrostatic fluidized bed powder coating apparatus and its use for powder coating conductive to non-conductive substrates (encompassing plastics) of regular, irregular or complex shapes (col. 4, 34-46) comprising; a vat 2 made of an insulating material with fluidizing means (col. 3,18-27); grounded conveyance means 19 (any electrode which encompasses the substrate for grounding to occur per claim 4) for immersing substrates in the powder in the vat (fig. 4) and then taking powder coated substrates to heating means to fuse the powder coating;

conductive electrode portions 10 of the fluidizing vat having electrical means 1 connected thereto for applying a voltage to portions 10. The insulating walls of the vat and particle-particle frictional interaction collectively inherently cause tribostatic charging during the fluidizing process by virtue of the frictional charging effects induced by polymeric powders contacting/ hitting wall surfaces or other particles. The reference is not limited by the voltage applied to the electrodes 10, but does teach away from detrimental arcing and sparking, which would have suggested low voltages, particularly since the presence of tribo charging would have been evident even though not recognized by Barford. Therefore it appears the fluidized bed operates without ionization or corona effects. Further, the Examiner notes the apparatus would not produce ionization or corona effects when there is no voltage applied to the electrodes, i.e. when not in operation or shut down and it is apparent the apparatus is "arranged" to do so. The presence of plural electrodes encompasses a first and further electrode/s which would be of the same polarity per claim 3. The electrode 10 is shown as a plurality of electrodes having a pointed conical configuration (e.g. "rod") per claims 5,28; it is the Examiner's position that any known effective shape would have been useable as an electrode because of the expectation of equivalent results per claims 5-19. While potential gradients and surface resistances are not cited, it is the Examiner's position that given the similarity in apparatus, substrates, and method, the potential gradients and surface resistances would have therefore been similar per claims 22-25 and 38-42, respectively. When a reference discloses the limitations of a claim except for a property, and the Examiner cannot determine if the reference inherently possesses that property (in this case, potential gradients and surface resistances), the burden is shifted to Applicant/s, In re Fitzgerald

205 USPQ 594 and MPEP 2112. The option of preheating of substrates is taught on col. 5, 28-37, per claims 44 and 49.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the electrostatic process of Barford using the described apparatus to apply powders to substrates which actively utilizes voltage electrodes and triboelectric powder charging because it would necessarily entail tribo charging by particle-particle contact and particle contact with the walls of the vat made of insulating material.

6. Claim 51 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pletcher US 5714007.

Pletcher teaches powder coating dielectric substrates by exposure to a triboelectrically charged powder cloud and then electrostatically applying oppositely charged particles onto the charged substrates to form coated substrates (col. 2, 40 to col. 3, 6). The powder coated substrate would therefore be the same as, or only slightly different from, the product by process of claim 51. The patentability of a product is based upon the product itself as claimed, and not upon its method of production. If the product of a product-by-process claim is the same or obvious from a product of the prior art, it is unpatentable even though the processes of making may be different. It is the burden of Applicant to establish an unobvious difference between the claimed product and that of the prior art, MPEP 2113.

7. Claim 51 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Biller et al US 5877231.

Biller teaches to powder coat non- or poorly conductive wood substrates using tribo-charged coating powder electrostatically applied to the substrates. Col. 7, 8-32; col. 14, 1-11; etc. The powder coated substrate would therefore be the same as, or only slightly different from, the product by process of claim 51. The patentability of a product is based upon the product itself as claimed, and not upon its method of production. If the product of a product-by-process claim is the same or obvious from a product of the prior art, it is unpatentable even though the processes of making may be different. It is the burden of Applicant to establish an unobvious difference between the claimed product and that of the prior art, MPEP 2113.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claim 43 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/479,722. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claim recites applying a voltage via an electrode in which charged particles influence coating, whereas claim 1 of '722 uses voltage applied from a portion of the chamber to influence coating, hence they are obvious variants for the same purpose and outcome.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

2. Claims 29-42,44,45,47,48 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 49-67 of copending

Application No. 10/534059. Although the conflicting claims are not identical, they are not patentably distinct from each other because 1) both sets of the claims require non- or poorly-conductive substrates, and 2) the instant application applied a voltage to an electrode whereas the claim of '059 applies it to a portion of the chamber or nearby, which would be an obvious variation because of the expectation of comparable results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 2,27 distinguish over the prior art which does not teach applying voltages of different polarities in the specific placements of the claim in a fluidized bed utilizing tribo charging in conjunction with an electrode to which voltage is applied. Claims 2,27 are objected to for depending from a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp